

Applicants have carefully considered this Application in connection with the Examiner's Action, and respectfully request reconsideration of this Application in view of the above Amendment and the following remarks.

Pending in the application are Claims 1 – 7 and 9 – 124.

Applicants have amended Claim 1 to specify that the pH of the acidic composition is between about 1.0 and about 1.5. Applicants have cancelled Claim 8. Support for the amendment of Claim 1 can be found in the specification throughout Examples 9 – 18. In these examples, the pH of the acidic composition prepared ranged from about 1.0 to about 1.5.

I. Rejections Under 35 U.S.C. §103(a)

A. Claims 1 – 8

Claims 1 – 8 stand rejected under 35 U.S.C. §103(a) as being obvious in view of U.S. Patent No. 5,419,908 to Richter et al. ("Richter"). The Examiner asserts that Richter teaches food additive anti-microbial compositions using organic acids and inorganic acids having a pH from 2.5 to 5.5.

As noted above, Applicant has amended the claims to specify that the acidic composition has a pH between about 1.0 and about 1.5. Unlike the teachings of Richter, the claimed subject matter encompasses an acidic composition containing organic acid alone in a very high concentration. In order to achieve effective antimicrobial activity, the claimed acidic composition must therefore have a very low pH. Richter does not teach such a low pH. Richter does not require such a low pH because Richter utilizes a combination of acids that is considerably more antimicrobial in nature. The claimed acidic composition maintains the organic acid in an undissociated form below a pH of about 1.5, which is necessary for its antimicrobial efficacy. It would not have been obvious in view of Richter to utilize a composition containing only organic acids at a very high concentration and at a very low pH. Because the claimed acidic composition operates according to an entirely different mechanism

compared to Richter, the inclusion of the high concentration of organic acid and low pH are not characteristics that could be determined through routine optimization.

For these reasons, Claims 1 – 8 are not obvious in view of Richter.

B. Claims 9 – 39 and 51 – 55

Claims 9 – 39 and 51 – 55 stand rejected under 35 U.S.C. §103(a) as being obvious in view of Richter in combination with U.S. Patent No. 6,436,891 to Kemp et al. (“Kemp”). The Examiner asserts that Kemp teaches the addition of sulfuric acid to calcium hydroxide and that it would have been obvious to use the metal salts of Kemp in combination with Richter.

Applicants respectfully assert, as already discussed above, that Richter does not teach or suggest the limitations of underlying Claims 1 – 8 because Richter does not teach an acidic composition having a pH between about 1.0 and about 1.5. The claimed composition requires a high concentration of organic acid and a very low pH to keep the organic acid in a dissociated form. Otherwise, the claimed composition will not have the desired antimicrobial activity. Richter utilizes a composition with stronger antimicrobial ingredients and therefore does not require the high concentration and very low pH.

Furthermore, with regard to Claims 9 – 20, Kemp does not teach or suggest the direct addition of the claimed metal salts to an acidic composition which maintains a low pH of between about 1.0 and about 1.5. The claimed metal salts are all very acidic in nature and are sufficient to lower the pH of the acidic composition to below 1.5. Kemp combines basic calcium hydroxide with sulfuric acid in a neutralization reaction, which does not contribute to lowering the pH of the composition. Kemp also teaches the addition of calcium sulfate, which is a neutral salt, not an acidic salt. There is no motivation to combine the teachings of Kemp with Richter because there would be no benefit in adding metal salts to the composition of Richter. Neutral calcium sulfate would not be soluble in Richter’s compositions and the dissolution of the salt could raise the pH of Richter and be detrimental to the antimicrobial activity. The current claims

require that the final pH of the acidic composition be from about 1.0 to about 1.5. This is simply not taught through the use of Kemp's metal salts in combination with Richter.

With regard to the remainder of the teachings of Kemp as they are applied to the current claims, Kemp always requires the addition of a strong inorganic acid such as sulfuric acid. Thus, the teachings of Kemp are not applicable to the current claims, in combination with Richter. The claims require organic acids alone, in high concentration, with a resultant very low pH. The inclusion of base material, alcohol, surfactants, and oleic acid may work effectively in combination with a strong inorganic acid, but these teachings are not applicable to high concentrations of organic acids meeting the claimed limitations. This is apparent because the claims utilize very different amounts of these additives compared to the teachings of Kemp and Richter.

With regard to Claims 45 – 55, Applicants respectfully assert that neither Richter nor Kemp, nor the references in combination, disclose food products or animal carcasses that have been contacted with the claimed acidic composition. Neither Richter nor Kemp teaches a composition containing an organic acid alone in high concentration having a pH from about 1.0 to about 1.5. Richter and Kemp rely on entirely different ingredients and mechanisms within their compositions to achieve antimicrobial efficacy and neither suggests that the claimed composition could be used to treat any food products, including ready-to-eat food products.

C. Claims 40 – 44

Claims 40 – 44 stand rejected under 35 U.S.C. §103(a) as being obvious in view of Richter in combination with Kemp and in further combination with U.S. Patent No. 6,627,593 to Hei et al. ("Hei"). The Examiner asserts that Hei teaches the use of hydrogen peroxide in an antimicrobial solution for food products.

Applicants respectfully assert, as already discussed above, that Richter does not teach or suggest the limitations of underlying Claims 1 – 8 because Richter does not teach an acidic composition having a pH between about 1.0 and about 1.5. The claimed composition requires a

high concentration of organic acid and a very low pH to keep the organic acid in a dissociated form. Otherwise, the claimed composition will not have the desired antimicrobial activity. Richter utilizes a composition with stronger antimicrobial ingredients and therefore does not require the high concentration and very low pH. The teachings of Kemp are also inapplicable to the claimed subject matter because Kemp always requires a strong inorganic acid and thus Kemp's asserted teachings on additives cannot be applied to the claimed acidic composition. The claimed acidic composition uses only organic acid.

Furthermore, the teachings of Hei cannot be applied to Claims 40 – 44 because Hei utilizes organic acids and peroxide to create peroxy dicarboxylic acids. See Hei, Abstract. The current claims do not create peroxy dicarboxylic acids because the claims do not include all of the necessary ingredients and reaction conditions for the creation of these acids. Hei is directed to an entirely different type of acidic composition and none of Hei's teachings are applicable to the current claimed subject matter. Hei certainly does not teach an acidic composition having a pH from about 1.0 to about 1.5. Hei's compositions have pH's of about 3. See Hei, Table 2, n. 5; Table 3, n. 2; and Table 5, n. 3.

For these reasons, Richter in view of Kemp and Hei do not teach or suggest the subject matter of Claims 40 – 44.

II. **Double Patenting**

Claims 56 – 124 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of U.S. Patent Nos. 6,572,908 and 6,808,730. Applicants have enclosed terminal disclaimers for each of these patents.

III. **Conclusion**

Applicants respectfully submit that, in light of the foregoing Amendment and comments, Claims 1 – 7 and 9 – 124 are in condition for allowance. A Notice of Allowance is therefore requested.

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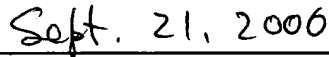
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If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Respectfully submitted,



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